

CLAIMS

What is claimed is:

1. An apparatus for receiving data from servers over links and for providing the data to a presentation device, the apparatus comprising:

an info segment port for coupling to a first of the links to receive thereover an info segment;

a content port for coupling to a second of the links to receive thereover a content item;

an ad port for coupling to a third of the links to receive thereover an advertisement; and

a controller, coupled to the info segment port, the content port, and the ad port, the controller being adapted to provide the content item to the presentation device until the info segment indicates an ad insertion point, and to then provide the advertisement to the presentation device.

2. The apparatus of claim 1 further comprising:

a local ad store coupled to the controller and the ad port to cache the advertisement between the advertisement being received and being provided to the presentation device.

3. The apparatus of claim 2 further comprising:

a local info segment store coupled to the controller and the info segment port to cache the info segment.

4. The apparatus of claim 3 further comprising:

a local content store coupled to the controller and the content port for caching the content item between the content item being received and being provided to the presentation device.

5. The apparatus of claim 1 wherein at least two of the info segment link, the content link, and the ad link are a same physical link mechanism, and wherein:

the corresponding two of the info segment port, the content port, and the ad port are a same physical port.

6. The apparatus of claim 5 wherein the info segment link, the content link, and the ad link are a same physical link mechanism, and wherein:

the info segment port, the content port, and the ad port are a same physical port.

7. The apparatus of claim 1 wherein a particular content item includes a content item identifier, wherein the info segment includes (i) a content identifier, and (ii) at least one ad entry each of which specifies an ad insertion point, and wherein the apparatus further comprises:

means, in the controller, for comparing the content identifier of the info segment to the content item identifier to determine whether the info segment is associated with the received content item; and

means, responsive to the means for comparing, for interrupting play of the content item at the ad insertion point specified by the at least one ad entry if the info segment is associated with the received content item.

8. The apparatus of claim 7 wherein the at least one ad entry each further specifies an ad type, and wherein the apparatus further comprises:

means, in the controller, for determining whether the received ad meets a criterion of the specified ad type, and if the ad does not, for retrieving another ad which does; and

means, responsive to the means for determining, for playing the ad which meets the criterion of the specified ad type.

9. The apparatus of claim 8 wherein the means for determining whether the received ad meets the criterion of the specified ad type comprises:

means for determining whether the received ad is of a type allowed to be played during an interruption of the content item.

10. The apparatus of claim 8 wherein the means for determining whether the received ad meets the criterion of the specified ad type comprises:

means for determining whether the content item is of a type during which the received ad is allowed to be played.

11. The apparatus of claim 1 wherein at least one of the links is an external link.

12. The apparatus of claim 1 wherein at least one of the links is an internal link.

13. The apparatus of claim 1 further comprising the presentation device integral to the apparatus.

14. The apparatus of claim 1 wherein the controller is further adapted to continue providing the content item to the presentation device after the advertisement.

15. The apparatus of claim 1 wherein the apparatus comprises a DVD player.

16. The apparatus of claim 1 wherein the apparatus comprises a music player.

17. The apparatus of claim 1 wherein the apparatus comprises an e-book viewer.

18. A method comprising:

receiving a first content item of a program;
receiving at least one second content item;
receiving an info segment of the program, the info segment including at least one entry, each entry specifying an interruption point for insertion of a second content item;
playing the first content item to an interruption point specified by the at least one entry;
interrupting play of the first content item;
playing the second content item; and
returning to play of the first content item.

19. The method of claim 18 further comprising:

in response to either the receiving of the program or the playing of the first content item, requesting the info segment.

20. The method of claim 19 wherein the interruption point is a specified time into play of the content item, and wherein the method further comprises:

the specified time into play, after beginning play of the first content item, interrupting play of the first content item.

21. The method of claim 20 wherein the interruption point indicates an amount of time from a point at which play of the first content item actually begins, rather than from a beginning of the first content item.

22. The method of claim 18 wherein the at least one entry further specifies a maximum interruption length, and the method further comprises:

if the second content item has not finished playing, the specified maximum interruption length after it started playing, halting play of the second content item and returning to play of the first content item.

23. The method of claim 18 wherein the info segment includes a plurality of entries, and the method further comprises:

after returning to play of the first content item, waiting for a next interruption point specified by a next one of the plurality of entries.

24. The method of claim 18 wherein the first content item is a television show or a movie, and the second content item is a commercial advertisement.

25. The method of claim 18 further comprising, prior to tuning in the program:
requesting the second content item; and
caching the second content item in a local store;

wherein the playing of the second content item includes retrieving the second content item from the local store.

26. The method of claim 25 further comprising:
requesting a plurality of second content items; and
caching the plurality of second content items in a local store;
wherein the playing of the second content item includes,

selecting from the cached plurality of second content items one second content item which meets a criterion specified in the entry, and

retrieving from the local store the selected one second content item.

27. The method of claim 18 further comprising:

the entry further specifying a lock condition; and

if the lock condition is met, skipping the interrupting of play of the first content item and the playing of the second content item.

28. The method of claim 27 wherein:

the lock condition comprises the condition of whether the first content item has been purchased or rented, and the lock condition is met if the first content item has been purchased.

29. The method of claim 18 wherein the info segment includes a value which associates the info segment with the first content item.

30. The method of claim 18 wherein the info segment is delivered with the first content item and is implicitly associated therewith.

31. A video disc player comprising:

means for playing a video content item from a video disc;

means for storing one or more interruption points;

means, coupled to the means for storing and means for playing, for interrupting play of the video content item at one of the one or more interruption points; and

means for playing a second content item when play of the video content item is interrupted by the means for interrupting.

32. The video disc player of claim 31 further comprising:

means for retrieving the second content item from an external server.

33. The video disc player of claim 31 further comprising:

means for storing the second content item.

34. The video disc player of claim 31 further comprising:
means for resuming play of the video content item after play of the second content item.

35. The video disc player of claim 31 further comprising:
means for limiting play of the second content item.

36. The video disc player of claim 35 wherein the means for limiting play of the second content item comprises:
means for defeating the means for interrupting.

37. The video disc player of claim 35 wherein the means for limiting play of the second content item comprises:
means for avoiding play of some second content items based on their content.

38. The video disc player of claim 35 wherein the means for limiting play of the second content item comprises:
means for halting play of the second content item after a predetermined amount of time.

39. An audio player comprising:
means for playing a first audio content item;
means for storing one or more interruption points;
means for interrupting play of the audio content item at the one or more interruption points;
means for playing a second audio content item during interruption of play of the first audio content item; and
means for resuming play of the first audio content item after play of the second audio content item.

40. The audio player of claim 39 further comprising:
means for storing a plurality of the second audio content items.

41. The audio player of claim 39 further comprising:

means for altering play of the second audio content item.

42. The audio player of claim 41 wherein the means for altering play of the second audio content item comprises:

means for avoiding the interruption of the first audio content item upon a condition.

43. The audio player of claim 42 wherein the condition is that the first audio content item has been paid for.

44. The audio player of claim 41 wherein the means for altering play of the second audio content item comprises:

means for avoiding play of second content items which do not meet a criterion.

45. The audio player of claim 44 wherein the criterion is based on a rating of content of the second content item.

46. The audio player of claim 41 wherein the means for altering play of the second audio content item comprises:

means for resuming play of the first audio content item after a predetermined period of time regardless of whether the second audio content item has played to completion.

47. An e-book viewer comprising:

means for accessing an e-book;

means for accessing one or more interruption points;

means, coupled to the means for accessing the e-book, for viewing the e-book;

means, coupled to the means for viewing and the means for accessing the one or more interruption points, for viewing alternative content at the interruption points.

48. The e-book viewer of claim 47 further comprising:

means for altering functionality of the means for viewing alternative content in response to a criterion.

49. The e-book viewer of claim 48 wherein the criterion is whether payment has been made for the e-book, the alternative content comprises a commercial advertisement, and the means for altering comprises means for avoiding play of the commercial advertisement.

50. The e-book viewer of claim 47 wherein the means for accessing the interruption points further comprises means for accessing one or more alternative content control specifiers for the one or more interruption points.

51. The e-book viewer of claim 50 wherein the one or more alternative content control specifiers are selected from the group comprising:

- a specifier of a permitted alternative content item type;
- a specifier of a prohibited alternative content item type;
- a specifier of a maximum interruption duration;
- a resume specifier; and
- a lock specifier.

52. A computer comprising:
first storage adapted to store a first content item;
second storage adapted to store a second content item;
third storage adapted to store a plurality of interruption points;
means for utilizing the first content item; and
means for interrupting utilization of the first content item at the plurality of interruption points; and
means for utilizing the second content item upon interrupted utilization of the first content item.

53. The computer of claim 52 further comprising:
the third storage being further adapted to store at least one control specifier for each of the plurality of interruption points; and

means for altering interruption of the first content item responsive to at least one such control specifier.

54. The computer of claim 53 wherein the at least one control specifier comprises a prohibited second content item type specifier.

55. The computer of claim 54 wherein the at least one control specifier further comprises a maximum interruption duration specifier.

56. The computer of claim 54 further comprising:
means for associating the plurality of interruption points with the first content item.

57. A video game apparatus adapted to play a video game, the video game apparatus comprising:
means for storing one or more interruption points;
means for interrupting play of the video game at the one or more interruption points; and
means for displaying an advertisement during interruption of play of the video game.

58. The video game apparatus of claim 57 further comprising:
means for associating the interruption points with the video game.

59. The video game apparatus of claim 57 further comprising:
means for storing a plurality of control specifiers; and
means for altering interruption of play of the video game in response to at least one of the plurality of control specifiers.

60. The video game apparatus of claim 59 wherein:
the control specifiers include a prohibited ad type specifier; and
the means for altering interruption prevents the means for displaying from displaying an advertisement of a type specified by the prohibited ad type specifier.

61. The video game apparatus of claim 59 wherein:

the control specifiers include an ad lock specifier; and

the means for altering interruption prevents interruption if payment has been made for play of the video game and the ad lock specifier permits prevention of interruption.

09764-01904
F06T0-92F92/50